JPRS 80456

31 March 1982

China Report

AGRICULTURE

No. 196

FBIS FOREIGN BROADCAST INFORMATION SERVICE

NOTE

JPRS publications contain information primarily from foreign newspapers, periodicals and books, but also from news agency transmissions and broadcasts. Materials from foreign-language sources are translated; those from English-language sources are transcribed or reprinted, with the original phrasing and other characteristics retained.

Headlines, editorial reports, and material enclosed in brackets [] are supplied by JPRS. Processing indicators such as [Text] or [Excerpt] in the first line of each item, or following the last line of a brief, indicate how the original information was processed. Where no processing indicator is given, the information was summarized or extracted.

Unfamiliar names rendered phonetically or transliterated are enclosed in parentheses. Words or names preceded by a question mark and enclosed in parentheses were not clear in the original but have been supplied as appropriate in context. Other unattributed parenthetical notes within the body of an item originate with the source. Times within items are as given by source.

The contents of this publication in no way represent the policies, views or attitudes of the U.S. Government.

PROCUREMENT OF PUBLICATIONS

JPRS publications may be ordered from the National Technical Information Service, Springfield, Virginia 22161. In ordering, it is recommended that the JPRS number, title, date and author, if applicable, of publication be cited.

Current JPRS publications are announced in Government Reports Announcements issued semi-monthly by the National Technical Information Service, and are listed in the Monthly Catalog of U.S. Government Publications issued by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

Correspondence pertaining to matters other than procurement may be addressed to Joint Publications Research Service, 1000 North Glebe Road, Arlington, Virginia 22201.

JPRS 80456

31 March 1982

CHINA REPORT

AGRICULTURE

No. 196

CONTENTS

I. GENERAL INFORMATION

National

Five Autonomous Regions Achieve Bumper Harvests
(Zhang Ru; ZHONGGUO NONGMIN BAO, 17 Jan 82) 1

Economic Planning in Agricultural Production Stressed
(ZHONGGUO NONGMIN BAO, 7 Jan 82) 3

Development of Qualified Agricultural Personnel Urged
(ZHONGGUO NONGMIN BAO, 10 Jan 82) 5

Conference Discusses Development of Aquatic Products
(Lu Liang; GUANGMING RIBAO, 13 Jan 82) 7

Agricultural, Sideline Procurement Plans for 1981 Overfulfilled
(ZHONGGUO CAI MAO BAO, 14 Jan 82) 9

Test Planting of New Paddy Rice Varieties Reported
(Various sources, various dates) 11

Shuang Gui No 1, by Chen Sisi
Three New Varieties

Reversal of Decline in Pig Production Emphasized
(ZHONGGUO NONGMIN BAO, 3 Jan 82) 14

Guangdong

Commune, Brigade Enterprise Total 1981 Income Reported
(NANFANG RIBAO, 6 Jan 82) 15

Dongfang County Achieves Bumper Harvest in 1981
(NANFANG RIBAO, 1 Jan 82) 16

Briefs
Edible Oil Procurement 17

Hebei

Livestock Production Up in Flatlands Despite Drought
(Hu Yuquan, et al.; HEBEI RIBAO, 29 Dec 81) 18

Huolu County Agricultural, Livestock, Sideline Production Up
(Li Laiping, Zhang Wenguang; HEBEI RIBAO, 29 Dec 81) 20

Henan

Briefs
Yancheng County Agriculture 22

Hubei

All-Round Capital Construction on Farmland Reported
(Cheng Qijing; HUBEI RIBAO, 28 Dec 81) 23

Industrial Production of Cotton Bollworm Virus Started
(Zhang Liang; HUBEI RIBAO, 29 Dec 81) 25

Briefs
Pine Moth Control 26
Peanut Nodule Bacteria 26
Regenerating Rice Variety 26
Agricultural Weather Observation Points 27

Liaoning

Bumper Harvests Achieved in 1981 Despite Floods, Drought
(LIAONING RIBAO, 17 Dec 81) 28

Changtu County Leads Province in Food Grain Production
(LIAONING RIBAO, 21 Dec 81) 30

Briefs
Kaiyuan County Soybean Production 32
Phosphate Fertilizer Output 32

Shanghai

Development of Livestock Production in Suburbs Reported
(JIEFANG RIBAO, 22 Dec 81) 33

Shanxi

Bumper Harvest of Flue-Cured Tobacco Reported
(Yi Xusheng; SHANXI RIBAO, 26 Dec 81) 35

Provincial Agricultural Work Conference Sets Future Tasks (SHANXI RIBAO, 16 Dec 81) 36

Briefs
Tobacco Production Problems 41

Yunnan

Briefs
1981 Agricultural Production 42

Zhejiang

Briefs
Hog Procurement 43

ABSTRACTS

AGRICULTURE

ZHONGGUO NONGYE KEXUE [SCIENTIA AGRICULTURA SINICA], No 1, 20 Feb 82 44

EROSION CONTROL

ZHONGGUO CAOYUAN [GRASSLAND OF CHINA], No 2, Jun 81 49

LASERS

JICUANG [LASER JOURNAL], No 2, 1982 51

MARINE RESEARCH

HAIYANG YUYE [MARINE FISHERIES], No 1, 25 Jan 82 52

PLANT EXPERIMENTATION

LINYE KEJI TONGXUN [FOREST SCIENCE AND TECHNOLOGY], No 11, 11 Nov 81 53

I. GENERAL INFORMATION

FIVE AUTONOMOUS REGIONS ACHIEVE BUMPER HARVESTS

Beijing ZHONGGUO NONGMIN BAO in Chinese 17 Jan 82 p 1

[Article by Zhang Ru [1728 0320]: "Implementing the Party's Farm Village Policy and National Minority Policy, Five Autonomous Regions Realized Bumper Harvests in Agriculture and Livestock Production Last Year"]

[Text] Combined report: Because the party's farm village policies and the national minority policies were further implemented and because science and technology were actively popularized, our nation's five national minority autonomous regions--Nei Monggol, Ningxia, Xinjinag, Xizang and Guangxi--overcame many natural disasters and realized bumper harvests in agriculture and livestock production in 1981.

Nei Monggol: Agriculture realized overall bumper harvests. The sowing area of food grains decreased by more than 630,000 mu from 1980, but the total yield increased by more than 2 billion jin, surpassing the highest level in history. Oil-bearing crops and sugar-yielding crops increased 16 percent and 18.8 percent respectively over 1980. Two years ago, the "production teams that relied on three commodities," which constituted one-third of the total number of production teams of the whole region, basically solved the problems of a shortage of food and clothing. The per capita average income of commune members in farm villages throughout the region is estimated at 215 to 220 yuan, an increase of more than 30 yuan over 1980.

Livestock production was seriously affected by drought in 1981, but the number of livestock still approached the number alive the previous year. The per capita income of the herdsmen of the whole region surpassed 300 yuan, an increase of more than 40 yuan over 1980.

Ningxia: In the more than 30 years since the founding of the nation, food grain production in Ningxia surpassed 2 billion jin in only 6 years. Four of these years were after the Third Plenum. During the past 2 years, it reached above 2.4 billion jin. Oil-bearing crops and sugar-yielding crops increased by a large amount, changing the long practice of importing edible oil and sugar by Ningxia. During the more than 30 years, there were 5 years in which the number of sheep throughout the region reached more than 3 million head. Three of those years were after the Third Plenum. In 1981, the number reached 3.27 million head. Because of the development of agricultural and livestock production and diversification, the people's life has been generally improved. The income of commune members in the Xihaigu region, which had been traditionally poor, also increased generally.

Xinjiang: The whole region's agricultural and livestock production realized bumper harvests for 3 consecutive years, and in 1981 it again realized bumper harvests. The area of planting of food grains decreased by 1.38 million mu, but the total yield still approached that of the previous year. Cotton and oil-bearing crops respectively increased 31 percent and 33 percent over the previous year. The yield of melons, fruits and hops also increased by a large amount. The yield of hops constituted 85 percent of the national production, and the amount exported constituted 95 percent of the national total.

The year-end number of livestock of the whole region increased by about 3 percent over 1980. Because of the development of production, the situation of the poor communes and poor brigades changed. For example, one of the eight poor countries of the whole region is Sule County. The per capita distribution of income of the farm village population of the whole county increased from 54 yuan the previous year to over 80 yuan.

Xizang: In 1981, this region suffered severe drought. Livestock production suffered from damage by snow over large areas. The severity of the disaster in some localities was the greatest in several dozen years. But because of the directives issued by the Chinese Communist Party Central Committee for work in Xizang in 1980, the policy was relaxed and the enthusiasm of the farming and livestock population was mobilized. Agricultural and livestock production of the whole region still realized improved harvests. Diversification developed quickly. It is estimated that the total income and per-capita income throughout the region will both greatly surpass those of the previous year. In the past, the Shannan area asked the state to appropriate 4 million jin of food grains each year, and there were people who had to go elsewhere to make a living. In 1981, this area only had to ask the state to appropriate 400,000 jin of food grains.

Guangxi: Guangxi suffered serious disasters in 1981. The area of sowing of food grain crops decreased by 6 million mu, but the total yield of food grains may still approach the highest level in history. All economic crops realized overall increased yields. The yield of cane sugar is estimated to have increased by 20 percent over the previous year. According to the policy and guidelines to develop and support production in mountain and border regions, the whole region established a group of commercial food grains and economic crop bases as a foundation for further development in the future.

9296
CSO: 4007/186

ECONOMIC PLANNING IN AGRICULTURAL PRODUCTION STRESSED

Beijing ZHONGGUO NONGMIN BAO in Chinese 7 Jan 82 p 1

[Article by commentator: "Agricultural Production Must Also Implement Economic Planning"]

[Excerpt] The agricultural economy is an important part of the national economy. The development of the agricultural economy cannot be separated from the overall construction of socialist modernization. Because agricultural development is not isolated, it cannot be separated from the development of industry, communications, science, education and health. Because overall development of agriculture is the foundation for a steady development of the national economy, it must serve the whole body of economic construction. Agriculture must never be separated from the guidance of national planning.

Today, our party has corrected the past mistaken "leftist" tendencies of overly tight control and overcentralization. The situation is becoming better as the broad numbers of farm villages have implemented many forms of production responsibility system centered around linking production to remuneration and contracting work. Does this allow agricultural production to rely entirely on market regulation and to develop freely without national planning? Certainly not. The "Resolution on Certain Questions in the History of Our Party Since the Founding of the Nation" passed by the Sixth Plenum of the Chinese Communist Party pointed out: "We must implement economic planning on the foundation of the public ownership system and at the same time develop the auxiliary function of market regulation." Regardless of what form of production responsibility system is implemented, the agricultural economy still requires economic planning; economic planning must still be the main effort and market regulation must be secondary. Some people think that after implementation of the production responsibility system, the agricultural economy does not need to emphasize economic planning. This is very wrong. Some people even regard the production responsibility system as "dividing the farmland for individuals to work on", and consider that the farmers' production can be completely regulated by the market. This is an even more serious mistake. During the previous period, some new situations emerged in some localities after bumper harvests in agriculture were realized. For example, agricultural sideline products and local specialty products accumulated. Sales were stagnant. Farmers had difficulty selling edible oil, cotton, codonopsis pilosula, prickly ash, and even surplus food grains. But in other localities, because the arrangement of production was not appropriate, production of live hogs dropped; in some cities, there were shortages in the supply of vegetables and procurement of third category agricultural and sideline products dropped. This shows that the overall development of agriculture cannot be separated from the entire plan of building the nation. If the agricultural economy is separated from the national economic construction plan, the proportional development of the national economy will not only become imbalanced, but there will be shortages in the market. Also, blind development in production will cause accumulation of staple agricultural and sideline products, thus hindering the further development of agriculture, slowing the pace of development of agriculture, and bringing economic loss to farmers.

The principles and policies established since the Third Plenum must be firmly implemented. The production responsibility system must be continued. The principle of "never relaxing food grain production, actively developing diversification" is unshakable, because only in this way can the nation and the people become rich. When implementing these principles and policies, we must first think of the nation, and they must be carried out under the guidance of national plans. In recent years, each locality has expanded the production of such economic crops as cotton, oil-bearing crops, flue-cured tobacco, prickly ash and codonopsis pilosula during readjustment of the distribution of production. In developing the light and textile industries, edible oil became basically self-sufficient and the efforts served a good function. But now the situation has changed. Regions of centralized production of some economic crops must pay attention to the new arrangement of national plans. Development of commercial products for which the domestic and foreign markets are already saturated should be discontinued. Even though the market needs some agricultural and sideline products and even though the production of commune member family sidelines is scattered, everyone must consider the national plans, and such production cannot be blindly developed. In general, the departments in charge of agriculture in each locality and the broad numbers of cadres in farm villages must view the whole situation, give careful guidance, and keep in mind the national benefit at all times. The masses of commune members must also consider the whole situation, recognize the whole situation, and actively complete the various national tasks so that our nation's agriculture can realize overall development under the prerequisite of insuring the needs of the nation.

9296
CSO: 4007/184

DEVELOPMENT OF QUALIFIED AGRICULTURAL PERSONNEL URGED

Beijing ZHONGGUO NONGMIN BAO in Chinese 10 Jan 82 p 1

[Article by staff commentator: "Pay Attention To Developing Qualified People in Farm Villages"]

[Text] "When there are qualified people, business will be prosperous." Since the Third Plenum of the party, our nation's agriculture has been able to develop relatively quickly on an overall basis because it has relied on policy and on science. But regardless of whether it relied on policy or on science, the key is still people. The many people with a high socialist awareness, with a rich knowledge of science and practical experience, provide forceful assurance of the development of agriculture and other business in our nation.

This year, the agricultural front should do its work better and make greater contributions to the nation. To enable our nation's agricultural development to develop more rapidly, to enable agriculture, forestry, livestock production, sideline production and fishery to develop on an overall basis, more intelligent, technically skilled and talented people are needed, more self-taught scholars, self-taught experts and various types of skilled professionals are needed. Discovering these talented people and utilizing their wisdom are an important task to hasten the development of agriculture at present and a major factor for vigorously developing agriculture.

Our nation's farm villages not only have rich natural resources, but the potential of skilled people and talent is also great. Among them there are: traditional technical talent; new generations of self-taught talent; intellectual youths who have come from the farm villages and returned to the farm villages; old workers who have retired from the factories, mines and enterprises in the cities and towns and returned to the farm village; demobilized personnel who have changed their career to become technicians; temporary workers and contract workers who have participated in national construction projects; civilian technicians who move from one locality to another, etc. In general, there are many kinds of talented people whose skills have not been utilized well for various reasons in the past.

In selecting and using farm village talent, there are still a lot of hindrances. Many people still do not pay enough attention ideologically to this problem. Some people are influenced by the traditional concept of small-scale production. They do not see the urgent need for various types of specialized technical personnel in the overall development of agriculture. Some people mistakenly criticize and limit some traditional technologies as things of feudalism and capitalism; for example, regarding horticulturists and such specialized labor as not engaging in proper work. There are also people who know that a person has knowledge, talent and skill and is willing to contribute to the building of the four modernizations, but for certain so-called political reasons, they are afraid of making mistakes and do not dare hire him. In implementing policy there are also problems. Some people are afraid some commune members will make headway economically and will widen the gap between rich and poor, and they are worried about "polarized division", so they impose many limitations on contracting work to professionals, contracting technical work, giving rewards to surplus production, etc. Some demand perfection. Some insist on seniority and discriminate against the younger generation, and some utilize their authority to place personal friends or relatives; thus people with specific talent, skills and knowledge cannot be correctly employed.

Today, the time has come when these problems must be solved. Party organizations and cadres at each level in farm villages must include in their daily agenda the problem of discovering and employing various types of specialized talent. They should care about and pay attention to such talent so that such people can contribute all their wisdom and talent to building a rich and prosperous new farm village.

9296
CSO: 4007/184

CONFERENCE DISCUSSES DEVELOPMENT OF AQUATIC PRODUCTS

Beijing GUANGMING RIBAO in Chinese 13 Jan 82 p 2

[Report by reporter Lu Liang [4151 5328]: "Develop Sea Water Culture, Exert Efforts To Increase Aquatic Products; a Group of Experts Enthusiastically Discussed the Direction of Development of Sea Water Cultivation of Fish"]

[Text] A group of experts and professors attending the national conference held recently in Hangzhou to discuss the direction and key points of developing sea water fish cultivation pointed out that our nation's ocean fishery production will not increase very much in the near term because of overly intensive fishing activities. In this situation, developing sea water fish cultivation has become the main way to increase marine production.

Experts believe that our nation's sea water fish cultivation has a great potential. The whole nation still has over 90 percent of shallow seas and beaches which can be used for cultiviation. There are nearly 100 different varieties of marine life which can be cultivated along our nation's coastal regions. In selecting the varieties for cultivation, we should suit measures to local circumstances, develop many varieties, and not exercise arbitrary uniformity. Within the national territory, we should first strengthen and redevelop high-yielding staple varieties with a large economic value, such as kelp, laver, oysters, razor clams, mussels, and prawns. Regarding other varieties such as clams and blood clams, which also have a definite yield, there is a traditional custom of raising such marine products and rich experience. If each locality emphasizes strengthening and developing such efforts, they will serve importantly to solve the needs of the people and the masses for marine products.

At the same time, in specific regions, the study of some local varieties such as mullet, barracuda, zhe mu yu, luo fei yu, clams, pearl shells, abalone, scallops, gracilaria confervoides, agar, and uloptervx pinnatifida should be strengthened and their cultivation should be actively supported and developed. In this way, the marine products which can be supplied to the market will gradually increase.

Experts have pointed out that the propagation of marine resources must also be emphasized. On the one hand, we must establish protective zones and protective seasons, actively and effectively protect and propagate presently available fish, shrimps and shellfish and such important resources, and prohibit indiscriminate catching and fishing. On the other hand, we must select some herbivorous and omnivorous fish and shellfish for artificial incubation and later release them into ocean regions suitable for their growth so that they can grow naturally in the ocean for catching later. At present, the ocean region for propagation should begin in Bohai to gradually establish an ideal ecological system for comprehensive development of mainly prawns along with fish, shrimps, shellfish and algae.

The conference was sponsored by the special committee on sea water cultivation of the China Aquatic Products Society.

9296
CSO: 4007/186

AGRICULTURAL, SIDELINE PROCUREMENT PLANS FOR 1981 OVERFULFILLED

Beijing ZHONGGUO CAI MAO BAO in Chinese 14 Jan 82 p 1

[Article: "Last Year, Procurement Plans for Agricultural and Sideline Products Were Completed With Surplus; the Total Value Reached More Than 23.5 Billion Yuan, an Increase of 7 Percent Over the Previous Year; the Amount of Cotton, Tobacco, Bast Fibers, Tea and Raw Lacquer All Increased Notably Over the Previous Year"]

[Text] It has been learned from the National General Supply and Marketing Cooperative that in 1981, the nation's procurement plans for agricultural and sideline products were completed with surplus. As of 31 December last year, a total of 23.54 billion yuan worth of goods was procured, completing the whole year's procurement plans with a surplus of 7 percent and registering an increase of 7 percent over the total amount procured in 1980.

The amount of some major staple agricultural and sideline products procured increased in varying degrees. Over 52.43 million dan of cotton were procured, an increase of 8.4 percent over the previous year. Over 23.19 million dan of flue-cured tobacco were procured, an increase of 88 percent over the previous year. Over 10 million dan of round pot jute and bluish dogbane were procured, an increase of 13 percent over the previous year. Over 5.4 million dan of tea were procured, an increase of 8.2 percent over the previous year. More than 300 million jin of wool were procured, an increase of 3.1 percent over the previous year. Over 16 million sheepskins were procured, an increase of 26.2 percent over the previous year. More than 330,000 dan of palm were procured, an increase of 5.6 percent over the previous year. Some 54,000 dan of lacquer was procured, an increase of 12.5 percent over the previous year. Because market management in some regions did a poor job of handling shortages of some agricultural and sideline products, many purchasers rushed to buy up the inventories, and the procurement plans were not completed well. For example, only some 3.38 million cowhides were procured during the whole year, a drop of 19.1 percent from the previous year. The amount of procurement of some third category indigenous and sideline products also decreased on a large scale.

The regional statistics showed that 22 provinces, cities and autonomous regions, including Guizhou, Yunnan, Xinjiang, Liaoning. Jilin, Kiangsu, and Shandong, completed the annual procurement plans with surplus. Among them, 15 provinces, cities and autonomous regions registered increases of varying degrees over the actual amounts procured during the previous year. There were also some provinces, cities and autonomous regions, such as Shaanxi and Gansu, which suffered from severe natural disasters and could not complete the procurement plans, and the amounts procured were less than the actual amounts procured the year before last.

9296
CSO: 4007/186

TEST PLANTING OF NEW PADDY RICE VARIETIES REPORTED

Shuang Gui No 1

Guangzhou NANFANG RIBAO in Chinese 20 Nov 81 p 2

[Article by Chen Sisi [7115 2448 2448] of the Guangdong Science and Technology News Agency: "New Superior Variety of Paddy Rice 'Shuang Gui No 1' Which Is Better Than 'Gui Chao No 2'"]

[Text] The "shuang gui No 1" paddy rice variety was originally designated "shuang gui 210". It was a hybrid produced in 1981 from "gui chao No 2" and the dense and fast-growing, late-maturing, late-crop "gui yang ai C17" as the female. It was a new variety of paddy rice successfully bred in 1979 by screening and selecting from the colony of combinations. For 2 years it was test planted at many test localities and in large areas in Guangdong and Guangxi. Such tests showed that "shuang gui No 1" is short stemmed, tolerant to fertilizers, high-yielding, resists lodging, has a relatively strong resistance to bacterial blight of rice and blast of rice, and the quality of its rice is good. Its disease-resistance, resistance to lodging and properties of producing bumper harvests and stable yields are all better than those of "gui chao No 2". Under superior conditions of cultivation and management, its per-mu yield can reach over 1,000 jin.

"Shuang gui No 1" has such species characteristics as strong sensitivity to temperature and weak sensitivity to light. It can be used both for the early and the late crop. Planted as the early crop, its full growth period is about 140 days, maturing 5 days later then "qui chao No 2". When it is sown earlier, its growth period is prolonged, and when it is sown late, its growth period is correspondingly shortened. As the late crop, it manifests early maturation with a full growth period of about 125 days. Sown at the beginning of July and transplanted during the last 10 days of that month, it can achieve full heading from the end of September to the beginning of October, favorable for safely avoiding cold dew winds.

Three New Varieties

Beijing NONGYE KEJI TONGXUN [AGRICULTURAL SCIENCE AND TECHNOLOGY NEWSLETTER] in Chinese No 12, 17 Dec 81 p 7

[Article: ["Introduction to Paddy Rice Varieties"]

[Text] Guang Wen No 5 and Guang Wen No 10 (intermediate xian)

These two varieties were successfully bred by selective breeding and crossing guang xuan No 3 (Guangxi short stemmed variety) with wen lu No 1 (our province's local tall-stemmed variety) at our academy's Paddy Rice Institute from 1970 to 1975. From 1975 to 1977, they participated in the joint regional experiments of superior varieties of intermediate xian rice of the whole province, and their yields placed first and second at most test localities. In 1976, they began to be test planted at various localities in the province and since their popularization, practice has shown that because these two varieties have traits of the regional varieties of our province, they can better adapt to frequent climatic changes of cold and hot weather. They produce notably increased yields in rice regions at 900 to 1,300 meters above sealevel, whether in one-crop fields, two-crop fields of rice and wheat, or two-crop fields of rice and rape. The per-mu yield in large areas is 800 to 900 jin, with highs reaching above 1,000 jin. In 1978, the Xiazai production team of Huayan Commune in Anshun County planted guang wen No 10 after harvesting 5.89 mu of wheat. The average per-mu yield was 1,235.4 jin. These two varieties are being popularized over large areas in central Guizhou in the counties of Zunyi, Xifeng, Jinsha, Yinxi, Puding, Qingzheng, Xiuwen and Zhijin. In 1980, a total of 200,000 mu was planted.

Characteristics: Both are intermediate in height. The plant height is ordinarily 85 centimeters. When the temperature is high and fertility is sufficient, their height can reach about 95 centimeters. The apicule of the two varieties is colorless and awnless. In the central regions of our province, the full growth period is generally 150 to 160 days for guang wen No 5; guang wen No 10 matures 3 to 4 days earlier. Guang wen No 5 is a large panicle variety. The number of full grains per panicle is generally over 100 grains. The leaves are broad and large. The color is light. The stem is thick, and the tillering strength is relatively weak. The color of the glume is yellow and shiny. The color of the rice grain is pure white. The thousand-grain weight is about 26 grams. Guang wen No 10 is a variety with many panicles. The number of full grains per panicle is 80 to 85 grains. The leaves are narrow and stiff and their color is dark green. The stem is relatively thin. The plant's tillering strength is strong. The color of the empty glume is dark yellow with occasional light black spots. The color of the rice grain is white and slightly dark. The thousand-grain weight is about 25 grams. Its resistance to panicle neck blast of rice disease is relatively poor.

Key points in cultivation: (1) Guang wen No 5 is relatively less tolerant to fertilizers. To avoid overprosperous growth, it is not suitable for planting in highly fertile fields. When planted in such fields, the leaf surface area will become overly large, the canopy will be closed, and the number of empty husks will increase, unfavorable to producing bumper harvests. Guang wen No 10 has narrow and stiff leaves, so cultivating it in fertile fields is favorable for it to develop its potential of producing many panicles and high yields. In the winter fields constantly soaked and infertile fields of yellow mud, additional phosphorous fertilizers should be added to the base manure. (2) The density of seedlings for both should be 6 x 5 cun. In fields with sufficient fertility and when the seedlings are transplanted early, the seedlings can be planted in a density of 7 x 5 cun, with 8 to 9 leaves per hole. The height of the seedlings suitable for transplanting is about 7 cun. Old seedlings that have been overaged should not be transplanted in order to avoid affecting tillering in the large fields. Guang wen No 10 planted in regions affected seriously by blast of rice should be fertilized to stimulate stable and healthy growth. Overapplication of nitrogen fertilizers during the latter period of growth should be avoided.

The price of each jin of seeds is 0.14 yuan, or 0.7 jin of food grains in ration ticket. The amount of seeds supplied is not limited. Packaging and mailing costs are charged according to actual cost.

Lu Beifan [4151 1014 0416] of the Guizhou Provincial Agricultural Science Academy

Yin Yu 272 (intermediate xian)

Intermediate xian rice variety yin yu 272 is a variety of many panicles successfully bred from the natural hybrid plant of zhen zhu ai in 1973 at our institute. In 1977, it participated in regional tests in the province. In 1978 it participated in the regional tests of the southern rice regions. The per-mu yields surpassed 1,000 jin, ranking among first place. It produced 10 to 15 percent more in yield than zhen zhu ai. Over the past several years, the results of various regional experiments, test planting and large area popularization in Guizhou Province showed that the per-mu yield was generally 800 to 900 jin, with highs reaching over 1,000 jin. The area of planting in 1980 was about 20,000 mu. At present, it is mainly being popularized in the northeastern regions of Guizhou.

Characteristics: The full growth period is about 135 days. The plant is about 100 centimeters tall. The plant type is appropriately clustered and loose. The leaves are narrow, long and uplifted. The average width between the boot leaf and the first leaf below it is slightly less than that of zhen zhu ai. The leaf at the central position is slightly longer. The length of the panicle is intermediate. The number of full grains per panicle is 80 to 90 grains. The fruiting percentage is higher than that of zhen zhu ai. The color of the grain is yellow. The apicule is colorless and has an occasional short awn. The quality of rice is intermediate. The percentage of yield of rice is 75 percent. The thousand-grain weight is low, 24.5 to 25.5 grams. Its tolerance to aridity is relatively strong, but its stems are soft and lodge easily. The panicle is small and has few grains. The grains are sparse.

Key points in cultivation: It is suitable for cultivation in fields of medium and high fertility. Its seedling age is about 30 days. Its planting density is 6 x 5 cun and 7 x 5 cun in fertile fields, with 6 to 8 leaves per hold.

The price of seeds is the same as that for guang wen No 5.

9296
CSO: 4007/210

REVERSAL OF DECLINE IN PIG PRODUCTION EMPHASIZED

Beijing ZHONGGUO NONGMIN BAO in Chinese 3 Jan 82 p 1

[Article: "Production of Live Hogs Cannot Be Relaxed"]

[Text] According to reports by concerned departments, at the end of 1981, the number of hogs in pens and the number of hogs marketed have both decreased. Each locality should pay due attention to this and not disregard it.

There are many reasons for the decrease in live hog production. The main reasons are that the leadership did not pay sufficient attention to the new problems and the new situation that have emerged along with the good situation in the farm villages, and they did not study and solve problems related to some of the policies to encourage the masses to raise hogs, market management, and disease prevention and vaccinations. Now, when the problems are beginning to be exposed, we should be decisive, implement countermeasures in time, and conscientiously solve the problems.

Some localities have already taken concrete measures to handle the drop in production of live hogs; for example, implementing assigned procurement and contracting production of food grains, oil-bearing crops, livestock and eggs to families; assuring the supply of feed for families raising hogs; zoning feed plots; subsidizing feed grains; and rewarding commune members who have completed the tasks of assigned procurement of live hogs and selling more hogs, giving rewards of industrial products that are selling well, etc. The situation in each locality is different and measures should be suited to local circumstances; corresponding measures should be taken to conscientiously implement policies, encourage commune members to raise more and sell more, and to solve actual problems, including the production of feed, disease prevention, improving varieties, and establishing production bases for commercial hogs.

In general, developing hog raising is an important matter that affects improvement of the people's life, stabilizing the markets in the cities and villages and stabilizing commodity prices; it is an important measure that helps to develop diversification, improve the agricultural structure, promote industrial and agricultural production, and increase the income of the masses. Each locality must investigate and study, summarize experience, concretely carry out this work and rapidly change the decline in the production of live hogs.

9296
CSO: 4007/184

COMMUNE, BRIGADE ENTERPRISE TOTAL 1981 INCOME REPORTED

Guangzhou NANFANG RIBAO in Chinese 6 Jan 82 p 1

[Article: "Our Province's Commune and Brigade Enterprises Continue To Progress in Readjustment; Last Year Total Income Reached Over 4.9 Billion Yuan, an Increase of Nearly 20 Percent"]

[Text] In 1981, our province's commune and brigade enterprises again realized new progress in readjustment. According to forecasts by each locality, the total income of the commune and brigade enterprises throughout the province may reach over 4.96 billion yuan, an increase of more than 800 million yuan over the previous year, or an increase of 19 percent. On the basis of preliminary estimates, the counties and cities with a total income of over 100 million yuan are Shunde, Nanhai, Dongwan, Zhongshan, Fanyu, Xinhui, Chaoyang, Chaoan, Xieyang, Huaxian, Taishan, Kaiping County and the suburbs of Guangzhou, and Foshan city, an increase from last year's 12 counties and cities to 14 counties and cities.

Our province's commune and brigade enterprises continued to progress in readjustment, as characterized by the following:

1. The commune and brigade enterprises were further readjusted. Their distribution gradually became more rational. The products were more suited to the market. Products which were urgently needed by the people and masses in production and living, such as building materials, household electrical appliances, clothing, shoes and hats, furniture and small hardware and small plastic commercial products all increased greatly. The production of medium and small farm tools also changed for the better.

2. Joint enterprises and production brigade enterprises continued to develop.

3. A new way to open up the channels of supply and marketing was created with the establishment of various types of specialized companies, implementation of specialized management, and integration of production, supply and marketing so that production by commune and brigade enterprises gradually developed toward specialization. In addition, foreign trade of commune and brigade enterprises also underwent new development. In 1981, the production value of export products by commune industries in Guangzhou city increased by more than 50 percent over the same period of the previous year.

9296
CSO: 4007/210

DONGFANG COUNTY ACHIEVES BUMPER HARVEST IN 1981

Guangzhou NANFANG RIBAO in Chinese 1 Jan 82 p 1

[Article: "Dongfang Shines With a Brighter Glow; Last Year Dongfang County Realized an Overall Bumper Harvest of Food Grains, Oil-Bearing Crops and Sugarcane, and Income of Commune Members Increased"]

[Text] After Dongfang County implemented the production responsibility system of contracting work to families on a popular basis, it realized an overall bumper harvest in agricultural production in 1981. The highest records in history were created in food grain production, production of oil-bearing crops, sugarcane production, watermelon seed production and livestock production. The income of commune members increased on a large scale. Dongfang County, which was a poor county for a long time, is now shining with even brighter splendor.

According to statistics, in 1981 the whole county's total production of food grains reached 102 million jin, an increase of 32 percent over 1980. In 1980, the whole county consumed 15.7 million jin of returned food grains. Up to the end of December 1981, the whole county consumed only 340,000 jin of returned food grains, while the amount of food grains submitted and sold to the state by farmers reached 12.36 million jin.

Diversification in this county also developed on a relatively large scale. In 1981, the total yield of peanuts in the whole county reached 4.45 million jin, an increase of 42 percent over the previous year. The more than 26,000 mu of sugarcane produced a total yield of 40,000 tons, an increase of more than fourfold over the previous year. Watermelon seeds, the traditional crop, increased 43 percent. The number of cattle on ranches and hogs in pens increased by more than 10 percent over the previous year. Cattle increased by 7,320 head, an increase of 14.5 percent. The 3,900 mu of rubber already planted are growing well. In 1981, the per capita average income increased from 37 yuan the previous year to 86 yuan, an increase of more than onefold. Annual average rations of food grains for commune members increased 120 jin over the previous year. Up to the end of October, savings of commune members in farm villages throughout the county reached 2.275 million yuan, an increase of 813,000 yuan over the same period the previous year.

9296
CSO: 4007/210

BRIEFS

EDIBLE OIL PROCUREMENT--This year, our province's peanuts realized a relatively large-scale increase in yield. Procurement of edible oil for the state also notably increased over that of the same period last year. According to statistics, up to 15 December, the whole province procured a total of over 106 million jin of edible oil, storing 5.4 million jin more in warehouses than in the same period last year and completing the annual procurement plan with a 30-percent surplus. This year, because each locality readjusted the distribution of production and expanded the planting area of peanuts, and because the national procurement policy was stable, the enthusiasm of the farmers for planting peanuts was greatly mobilized and relatively large-scale increases in yield were realized. Farmers in the peanut-producing regions all demonstrated their patriotic spirit, their love for the collective and for socialism, and submitted more edible oil for sale to the state. For example, Shantou and Zhanjiang, which are the two major edible oil producing regions, respectively submitted 11 million jin and over 2.9 million jin more edible oil to the state than in the same period last year. [Text] [Guangzhou NANFANG RIBAO in Chinese 28 Dec 81 p 1] 9]96

CSO: 4007/210

LIVESTOCK PRODUCTION UP IN FLATLANDS DESPITE DROUGHT

Shijiazhuang HEBEI RIBAO in Chinese 29 Dec 81 p 1

Large Domestic Animals in the Grassland Area of Zhangjiakou Prefecture

[Article by Hu Yuquan [5170 3768 3123], Jin Hongyu [6855 7703 6657], Ma Yunshan [7456 0061 1472], and Li Shibin [2621 0013 2430]: "Break Through the Confines of the 'Leftist' Ideology, Actively Implement the Production Responsibility System in Livestock Production; Zhangjiakou Prefecture Raises Fat and Healthy Livestock on Flatlands"]

[Text] The leadership at each level of administration of the flatlands in Zhangjiakou Prefecture has broken through the confines of the "leftist" ideology, and has implemented and perfected the production responsibility system of establishing prices for families to purchase livestock and for families to raise and use large domestic livestock in a big way. The growth and fattening of livestock have been generally good, even though the area has suffered severe drought for 2 consecutive years. Over 226,000 head of large livestock on the flatland have already been herded into sheds for feeding for over a month, and the fattening is above 80 percent. The number of sheep has increased to over 814,000 head, surpassing the highest level in history by 10.5 percent. The percentage of large livestock and sheep marketed, the percentage of meat production and the percentage of commercial commodities have all increased over last year.

This year, as the spirit of the Sixth Plenum and the "decision" are passed on and implemented, the Zhangjiakou Prefecture CCP Committee held classes to discuss the standards for truth. The broad ranks of cadres and masses on the flatlands conscientiously reviewed and summarized the experience and lessons in cultivating and managing livestock since the start of the cooperative movement. The wishes of the masses were carried out and the following forms of production responsibility system in raising livestock were implemented: Prices were established for families to raise and use livestock. Each brigade had families raising livestock, and profits from newborn livestock were shared. The female livestock brigades had families raising livestock; the costs were guaranteed, while profits from newborn livestock were shared. These livestock converted into money for the families constituted over 90 percent of the total number belonging to the production teams, fully mobilizing the enthusiasm of the masses to protect and care for the animals.

Mandetang Commune in Kangbao County had a total of 3,047 head of large livestock. Last year, the whole commune suffered from severe drought. This spring, the livestock raised by the collective were thin; so after democratic discussion among the commune members, they were all converted to money for the families. The commune members built cowsheds and added night-time grass as feed. Everyone was concerned. Every family took care of the livestock carefully. The livestock was quickly fattened. Although this year the area again encountered severe drought and although only 50 percent of the annual harvest was achieved in agriculture, the number of livestock did not decrease but increased by 412 head over the number before the livestock was assigned to the families for feeding. Dasuji Commune in Shangyi County this year realized only 30 percent of the annual harvest. It is estimated that if the livestock had been fed by the collective, there would have been a shortage of 6.6 million jin of grazing grass and a shortage of 660,000 jin of feed. The two combined would have required capital of 192,000 yuan. Because the livestock was distributed to the families for raising, commune members began storing grass and protecting the livestock when autumn arrived, and the feed and grass were basically self-sufficient.

The development of livestock has increased the income of commune members. Up to the end of November, the four counties on the flatlands had already sold over 30,700 head of large livestock and over 109,000 head of mutton sheep, and there were also large numbers of other livestock products.

9296
CSO: 4007/186

HUOLU COUNTY AGRICULTURAL, LIVESTOCK, SIDELINE PRODUCTION UP

Shijiazhuang HEBEI RIBAO in Chinese 29 Dec 81 p 1

[Article by Li Laiping [2621 0171 1627], and Zhang Wenguang [1728 2429 0342]: "Agriculture, Forestry, Livestock Production, Sideline Production All Developed; Income Doubled in 3 Years."]

[Text] Agriculture, forestry, livestock production and sideline production have undergone overall development in Huolu County.

The total agricultural income of the whole county reached over 85 million yuan, an increase of 32.35 million yuan over that before the Third Plenum. The per capita distributed income increased from 89 yuan 3 years ago to 172 yuan, and per capita income from family sidelines was above 50 yuan, so the actual standard of living reached over 220 yuan.

Huolu Country is one-third mountainous, one-third hilly and one-third flatland. It neighbors Shijiazhuang city. It has a foundation for developing agriculture and superior conditions for developing industries and sidelines. After the Third Plenum, the county criticized leftist tendencies, liberated ideology, started out from the actual situation, readjusted agricultural distribution, and sped up the development of agriculture.

First, in agriculture, the county stabilized the production of food grains, promoted cotton production and reduced the cost of agriculture. In food grains production, the county strictly controlled the number of mu planted, increased the per-mu yield, preserved the total yield, and at the same time, transferred cotton appropriately to good land suitable for planting cotton, conscientiously implemented the fixed number of mu, changed false reporting of more while planting less, and prevented interplanting of food grains to squeeze out cotton. This actually expanded the planting area of cotton. In this way, food gain production of the whole county increased from a per-mu yield of over 850 jin before the Third Plenum to 1,000 jin, an average annual increase of 50 jin. This year, although disasters reduced the yield, it was still above 70 jin. Increases in food grains and in cotton were realized. At the same time, the county actively implemented the responsibility system of linking production to remuneration and conserved labor and capital, thus reducing the annual agricultural expenditure by over 2 million yuan. Public accumulation of capital increased by 1.43 million yuan over the previous year, and distribution to commune members increased by 3.34 million yuan, a per-capita increase of 12 yuan.

Second, the county increased building materials, promoted transportation, and developed industry and sideline production in a big way. It organized the communes and brigades to establish production of building materials and transportation services as sidelines. Those who could fire bricks were told to build kilns; those who could quarry were told to build rock quarries to satisfy the construction needs in Shijiazhuang city. At present, over 270 brick kilns, lime kilns, rock quarries and quartz mines have been established. Nearly 10,000 persons have been employed. The net income from sideline production of building materials has reached 6.7 million yuan. Led by the sideline production of building materials, industrial sidelines of casting steel, casting iron, repairs, noodle manufacturing, foodstuffs manufacturing, paper manufacturing, and construction have also developed. The whole county already has over 1,780 such operations employing over 19,000 people.

Third, the county managed forests and fruit production, and actively assisted families in cultivation. Among the whole county's 203 brigades, 192 have established fruit gardens covering a total of 10,000 mu. Annual income from fresh fruits reached 6.21 million jin. In developing livestock production, the county committee actively encouraged and assisted key livestock raising families and specializing families. At present, the whole county has 1,137 key livestock raising families. Led by them, over 95 percent of the total number of farm families throughout the county have engaged in family livestock raising. The per-capita income from family livestock cultivation has reached over 50 yuan.

9296
CSO: 4007/186

BRIEFS

YANCHENG COUNTY AGRICULTURE--Zhengzhou, 18 Mar (XINHUA)--Total grain output of low-yield areas in Yancheng County, Henan, increased from some 100 million jin in 1977 to more than 200 million jin in 1981. Low-yield farmlands account for 40 percent of the county's total area of arable land. [Beijing XINHUA Domestic Service in Chinese 0041 GMT 18 Mar 82 OW]

CSO: 4007/311

ALL-ROUND CAPITAL CONSTRUCTION ON FARMLAND REPORTED

Wuhan HUBEI RIBAO in Chinese 28 Dec 81 p 1

[Article by Cheng Qijing [4453 0796 4544]: "Insist on the Principle of Whoever Benefits Should Take the Responsibility, Mobilize the Enthusiasm of the Masses; Capital Construction for Water Conservancy on Farmland Throughout the Province Is Launched on an Overall Basis"]

[Text] Capital construction for water conservancy on winter farmland throughout the province has been launched on an overall basis. At present, over 890,000 laborers have joined in the work, including over 96,000 people working on key water conservancy projects.

In September of this year, after the provincial people's government held the provincial farmland capital construction conference, the localities and cities held special conferences one after the other to reiterate the goals of the provincial conference and implement the measures decided upon by the provincial conference. The local and city conferences also combined the tasks with the actual situation of the locality and appropriately arranged the tasks for this winter and next spring. Full preparations were carried out regarding ideological and organizational leadership, labor and machinery. After capital construction for water conservancy on farmland was launched on an overall basis, each locality strengthened construction management, implemented the system of professional contracts, established tasks, determined investment, established quality standards and set the time for completion. After construction of the Huohe reservoir in Xunyang Prefecture was contracted by the provincial water conservancy construction corps, construction progressed quickly. The quality of construction also notably improved. All localities with favorable conditions have implemented mechanized construction. Xianning Prefecture has a concentration of 47 large and medium machinery units. Mechanized construction was used in fortifying the Wangying reservoir, in the capital construction of several key places of the Siyi public embankment, and the Chibi dry embankment, and in carrying out annual repairs. Over 2,000 square meters of earth were moved to the construction sites every day. This lessened the labor intensity of commune members and also hastened the progress of construction. The machinery was welcomed by the masses.

At present, engineering command headquarters have been established for over 70 construction projects throughout the province. Construction of some projects has already entered the final stage. The construction project of the canal system of the Sangan canal in the Yingdan irrigated region in Xiangyang Prefecture has had a work force of over 17,000 people since November. Xiaogan Prefecture has organized 100,000 laborers to dredge and repair large and medium reservoirs, pumping stations and canals through concentrated effort. Work on certain segments of the canal has been completed. Small water conservancy facilities have mushroomed everywhere. Each locality has insisted on the principle of whoever benefits should be responsible. The labor force that works in ordinary years has been divided and assigned to the construction teams according to the number of laborers needed, including families and individuals, thus mobilizing the enthusiasm of the masses.

Juiji Commune in Nanzhang County began construction at 417 localities this year. It planned to employ 8,000 laborers, but the labor force actually reached over 9,400 persons, and some of the construction projects have already been completed. Each locality has decided to seize the opportune time of winter to complete major construction tasks in one vigorous effort before the spring holidays and to strive for taking the initiative to realize benefits this year and to achieve agricultural bumper harvests next year.

9296
CSO: 4007/214

INDUSTRIAL PRODUCTION OF COTTON BOLLWORM VIRUS STARTED

Wuhan HUBEI RIBAO in Chinese 29 Dec 81 p 1

[Article by Zhang Liang [1728 5328]: "Another New Weapon to Prevent and Control the Cotton Bollworm; Our Nation's Pioneer Effort in Developing the Cotton Bollworm Virus Has Led To the Start of Industrial Production"]

[Text] After 9 years of difficult exploration, industrial production has begun of the cotton bollworm virus developed jointly by the Microbiology Research Institute of the Jingzhou Prefecture, the Insect Virus Research Laboratory of the Biology Department of Huazhong Normal College and the Institute of Automation Applications and Technology in Changsha city. Now there is hope of mass-producing this new pesticide pioneered in our nation to supply the cotton areas.

The cotton bollworm is one of the major pests that causes the most severe damage in cotton production. In the past, highly poisonous pesticides were mainly used to spray the plants. As the resistance of the cotton bollworm became stronger, the effect of control and prevention became weaker; thus, large-scale reduction in the yield of cotton has occurred and people and animals have been endangered. Since 1973, the Microbiology Research Institute of Jingzhou Prefecture and the Insect Virus Research Laboratory of the Biology Department of Huazhong Normal College have cooperated and searched for new methods of biological prevention and control of cotton bollworms. They found a strain of "heliothis nucleopolyhedrosis virus" in the dead bodies of cotton bollworms that had died naturally. This type of virus is strongly infectious. When healthy insects are infected, they quickly become ill and die. During the past several years, experiments have been conducted in 17 provinces and cities throughout the nation and they have proven that the percentage of control and prevention of this kind of viral pesticide is above 85 percent, it is not harmful to humans or animals and it does not pollute the environment.

To enable mass production of this type of virus so that it can be used in large field production early, scientific and technical workers developed a whole set of machinery equipment for year-round cultivation and propagation of cotton bollworms, for infecting them with the virus, and for making the dead insects into pesticide. During the last 10 days of December, experts and professors who joined together to evaluate the product reached the conclusion that the study of the cotton bollworm virus and its industrial production have opened up a new path for preventing and controlling insect pests of cotton in our nation. They also suggested that experimental demonstration be expanded and its application be actively popularized.

9296
CSO: 4007/214

BRIEFS

PINE MOTH CONTROL--Anlu County has used bai jiang (4101 0304) bacteria and Wuhan bacillus and such microbial pesticides to treat the pure masson pine forest of 280,000 mu and has consistently controlled the emergence of and damage by pine moths for 8 years. Anlu County is in a hilly region and is an area where pine moths occur frequently. Because the county insisted on prevention year after year and because it alternately used various microbial pesticides, the area of occurrence of pine moths has been reduced from 80,000 mu in 1974 to 100 mu in 1981. The percentage of trees affected by the pine moth has been contained to below 5 percent. The density of the population of pine moths has also dropped from 66.4 moths per tree in 1974 to 0.1 moth. [Text] [Wuhan HUBEI RIBAO in Chinese 26 Dec 81 p 2] 9296

PEANUT NODULE BACTERIA--The Jingzhou Prefecture Microbiology Research Institute has screened and selected a superior quality peanut nodule bacterium. After 2 years of seed dressing experiments, an experimental demonstration in large fields covering 1,100 mu was conducted at a dozen test locations throughout the prefecture this year. Peanut plants planted from seeds dressed with this nodule bacterium grew prosperously, the leaves were green, the plants had many nodules, the nitrogen fixing ability was strong and the yield of peanuts was high. According to statistics, the yield of the demonstration fields increased by more than 20 percent over the control area. The 3 mu of experimental fields of the Jianghu farm in Tianmen County produced an average per mu yield of 1,100 jin of fresh peanuts, an increase of 34 percent over the control area. The science committee of the prefecture is preparing to popularize this new agricultural technique in a big way throughout the prefecture next year. [Text] [Wuhan HUBEI RIBAO in Chinese 26 Dec 81 p 2] 9296

REGENERATIVE RICE VARIETY--This year, Pugi County introduced the new variety of regenerative rice "yan xian 203" introduced by the Hunan Provincial Agricultural Sciences Academy and test planted it in the hilly regions, in plains, and on the banks of lakes successfully. According to statistics of six test points, the average per-mu yield of the first crop was 305 jin 5 liang. The general characteristic of regenerative rice is that it only needs to be sown once. Its seedlings need to be cultivated only once and they need to be transplanted only once. This can conserve the amount of seeds and labor for a crop. Because the regenerative ability of "yan xian 203" is strong, the total average yield of the two crops is higher than the yield of the local early and late continuous crops. In double cropping rice regions, it is a new variety with great potential. [Text] [Wuhan HUBEI RIBAO in Chinese 26 Dec 81 p 2] 9296

AGRICULTURAL WEATHER OBSERVATION POINTS--The provincial Metrological Science Research Institute and the Wuhan Hongshan Ward Vegetable Bureau have established two special agrometeorological observation points in Hongshan Ward. One is set up at the vegetable experiment station of Hongshan Commune mainly to observe the climatic conditions required for growing beetroots. The other is set up at the vegetable experiment station of Fenghuo Brigade of Qingling Commune mainly to observe the climatic conditions needed for planting and growing lotus roots. The establishment of these two stations will provide meteorological data to improve the planting method of vegetables, to improve the quality of vegetables and to reduce production costs. [Text] [Wuhan HUBEI RIBAO in Chinese 26 Dec 81 p 2] 9296

CSO: 4007/214

LIAONING

BUMPER HARVESTS ACHIEVED IN 1981 DESPITE FLOODS, DROUGHT

Shenyang LIAONING RIBAO in Chinese 17 Dec 81 p 1

[Article: "The Production Responsibility System Mobilized the Productive Enthusiasm of the Farmers; the Value of This Year's Total Production in Our Province and the Income of Commune Members Will Surpass Last Year's; the Average Per Capita Income of Commune Members Received From the Collective and From Family Sidelines May Reach 200 Yuan"]

[Text] Some regions of Liaoning Province suffered major floods and some experienced drought this year, but agricultural production still realized bumper harvests. The total value of agricultural production and the average per capita income of commune members will both surpass those of last year, which was a bumper harvest year.

Major drought has continued for 2 years in Chaoyang Prefecture in western Liaoning and in parts of Jinzhou city and Fuxin city. Some communes in Dalian city and Yingkou Prefecture in southern Liaoning suffered a major flood. the area of damage covered more than 15 million mu, and the disaster area covered 11 million mu, of which 5 million mu produced no harvest. But because the various forms of agricultural production responsibility system were established and made sound by suiting measures to local circumstances this year, the productive enthusiasm of the farmers was mobilized. The agricultural structure was further readjusted. Diversification was actively developed. The standard of scientific planting was elevated with effort. Most regions realized increased yeilds and increased harvests. According to preliminary statistics compiled by concerned departments, this year the total yield of food grains throughout the province may still surpass last year, which was a year of bumper harvests. The total yield of economic crops, except for tussah silkworm cocoons and sunflowers was generally higher than last year's level. Of this total, the yield of cotton throughout the province increased 5.4 percent over last year. The yield of peanuts increased 17.1 percent. The yield of sesame increased 42 percent. The yield of sugarbeets increased 72.4 percent, and the yields of flue-cured tobacco, fruits and vegetables all surpassed those of last year. There were also new developments in forestry, livestock production, sideline production and fishery. This year, income from family sidelines of commune members throughout the province increased by one-third over last year. This yeas has been the best year in history. According to preliminary estimates, this year the average per capita income received by commune members throughout the province from the collective will reach over 126 yuan. Adding this to the income from family sidelines, the actual average per capita income may reach 200 yuan.

At present, the broad masses of commune members in the farm villages throughout the province are enthusiastically submitting and selling new food grains and local specialty products to the state and they are actively carrying out winter production activities to prepare for next year's production.

9296
CSO: 4007/178

CHANGTU COUNTY LEADS PROVINCE IN FOOD GRAIN PRODUCTION

Shenyang LIAONING RIBAO in Chinese 21 Dec 81 p 1

[Article: "Changtu County's Broad Masses of Commune Members Make New Contributions to the Nation Again This Year; the Total Yield of Food Grains, the Amount of Commercial Commodities Submitted and Sold to the State, the Percentage of Commercial Food Grains, and the Per Capita Average Amount of Food Grains Submitted and Sold to the State All Lead the Province"]

[Text] This year, the broad masses of commune members in the farm villages of Changtu County again made new contributions to the nation. The total yield of food grains of the community, the amount and percentage of commercial products and the per capita average of commercial food grains produced all led the whole province.

Up to 17 December, the total yield of food grains throughout the country reached 1.9 billion jin, and 1.05 billion jin were submitted and sold as commercial food grains. The percentage of commercial food grains reached 60.7 percent. Each person provided 1,270 jin of commercial food grains. All of these surpassed the past levels of the county and all ranked first in the whole province. The total yield of food grains in society increased by 810 million jin over that in 1977, prior to the Third Plenum, and the amount of commercial food grains increased by more than 570 million jin. Compared to 1980, a year of large bumper harvests, the total yield of food grains in society increased 330 million jin, and commercial food grains increased by more than 250 million jin. The per capita production of commercial food grains increased by 303 jin, or an increase of 10 percent.

Every brigade of the 37 communes of the whole county increased the yield and the harvests. They did not forget about the nation during the bumper harvests. The amount of commercial food grains submitted and sold to the state not only surpassed 1.7 billion jin, but the quality was also good. The moisture content was low, and many varieties of crops were involved. The whole province produced over 130 jin of soybeans and submitted and sold to the state more than 83 million jin. The first-grade food grains submitted and sold to the state by the whole county constituted 75 percent. Among them, first-grade corn constituted 80 percent, and first-grade soybeans and sorghum constituted over 70 percent. The first-grade product of the 50 million jin of corn submitted and sold to the state by Baoli Commune constituted 98 percent. The water content in food grains dropped by a large amount. The water content in corn averaged 21 Q1 [0003], a drop of three shuifen [3055 0433] from last year. This year's food grain procurement work was emphasized by the county committee and the county government. The food grain departments and the communes and brigades cooperated closely. The power, public secutiry, railroad and transportation departments all cooperated, and compared to last year, procurement was 1 month ahead of schedule.

9296
CSO: 4007/178

BRIEFS

KAIYUAN COUNTY SOYBEAN PRODUCTION--Our province's home of soybeans, Kaiyuan County, again realized a bumper harvest of soybeans this year. The average per-mu yield of the 250,000 mu of soybeans throughout the county reached 305 jin, creating the highest record and leading the province. During the past 2 years, Kaiyuan County has not only implemented the policy of establishing an agricultural production responsibility system, but it has also exerted efforts in scientific planting, and the yields of soybeans have increased year after year. Last year, the per-mu yield reached 255 jin. This spring, the leading comrades of the county committee and the county government conscientiously listened to the opinions of the agricultural science technicians and implemented five technical measures to achieve high yields throughout the county. The superior variety "kai yu No 8" was used in 90 percent of the plots. Phosphorous fertilizers were applied on a wide basis. Equal distance bunch planting was implemented. The soybean seeds were washed. Insect pests were prevented and controlled in time. Damage by aphids and borers was controlled. The insect population affecting soybeans was reduced to under 2 percent. The highest yielding plots produced a per-mu yield of over 540 jin. [Text] [Shenyang LIAONING RIBAO in Chinese 15 Dec 81 p 1] 9296

PHOSPHATE FERTILIZER OUTPUT--Liaoning Province's 1981 phosphate fertilizer output increased 140,000 tons over the planned figure of the same year, a historical record. This increased output had initially eased Liaoning's phosphate fertilizer's supply and marketing conflict. [Excerpt] [Shenyang LIAONING RIBAO in Chinese 8 Feb 82 p 2]

CSO: 4007/294

DEVELOPMENT OF LIVESTOCK PRODUCTION IN SUBURBS REPORTED

Shanghai JIEFANG RIBAO in Chinese 22 Dec 81 p 2

[Article: "Livestock Production in the Suburbs Develops Steadily in Readjustment; the City Is 60 Percent Self-Sufficient in Pork, Fowl and Eggs"]

[Text] The proposal by the Central Committee of the Chinese Communist Party to "make suburbs the bases for producing supplementary foods" is being gradually implemented in the Shanghai suburbs. It is estimated that by the end of 1981, the percentage of self-sufficiency in meat marketed by suburban producers will reach 59 percent. The percentage of self-sufficiency in fowl for domestic consumption may reach 70 percent. The percentage of self-sufficiency in fresh eggs may reach 64 percent. The marketed amounts of pork, fowl (including export fowl) and eggs have increased 34 percent, 44 percent and more than onefold respectively over those in 1978, prior to the Third Plenum.

The development of suburban livestock production has these three outstanding characteristics:

Because the food grain production tasks in the suburbs are barely sufficient, because the amount of feed is limited, and because of the actual needs of the city people, the guideline of steadily developing live hogs, egg production, dairy cows, herbivorous livestock and fowl in a big way has been followed. The city's concerned departments have ruled that feed for live hogs should mainly be withheld and kept by the collective, and the state should give appropriate rewards. The feed for fowl should be provided by the state. According to production plans, "fowl can be exchanged for feed" and "eggs can be exchanged for feed;" thus the development of hogs, fowl and eggs has been assured. Domesticated animals such as rabbits and sheep, for which feed is not limited, have increased on a large scale. In 1981, the amount of rabbit fur to be marketed may by five times more than the amount marketed in 1978, and the amount of sheepskin marketed may for four times that marketed in 1978.

In livestock production, the distribution of different kinds of livestock has been emphasized in a relatively rational way according to different natural resources, historical custom and technical and economic conditions. The raising of hogs for pork is popular throughout the whole suburban region. The nearby suburban vegetable-producing areas all have rich sources of swill and city slops and most raise hogs collectively. In the more distant suburban food grain and cotton producing regions, the raising of hogs is mostly carried out by commune member families. The production of sheep follows historical custom. Qingpu, Jiading and Shanghai counties raise lake sheep; Congming County and the two islands of Changxing and Hengsha in Baoshan raise goats. The production of egg laying ducks in nearby Shanghai and Chuansha Counties, where labor is abundant and the economic and technical conditions are better, is mostly confined to duck farms. In the more distant Songjiang, Qingpu, Jinshan Counties, where there are relatively more water surfaces, ducks are raised in enclosures and herded.

Because many communes and brigades in the suburbs have a definite family tradition and a definite foundation of raising domestic animals scientifically, the guideline of "equal emphasis on public and private raising" has been further implemented. In the production of hogs, boars and sows are mainly raised collectively and pork hogs are mainly raised by commune member families. Egg laying fowl are all provided by collective farms. Eggs laid by fowl raised by commune member families are mainly used for self-consumption or for sale at markets in the countryside. Higher intensification and specialization has elevated the standards of scientific breeding, feeding and prevention and control of deseases. The overall implementation of the production responsibility system--mainly contracting work to specialists and linking production to remuneration--has also enabled a large number of livestock farms to turn losses into profits. At present, the percentage of livestock farms making a profit has increased from about 40 percent before the Third Plenum to about 90 percent.

The development of livestock production has also increased the farmers' income. During the past 2 years, each laborer in the suburbs has received an increase of 47 yuan in income from the development of livestock production.

9296
CSO: 4007/178

BUMPER HARVEST OF FLUE-CURED TOBACCO REPORTED

Taiyuan SHANXI RIBAO in Chinese 26 Dec 81 p 1

[Article by Yi Xusheng [5030 2485 0581]: "Our Province Realized a Bumper Harvest of Flue-Cured Tobacco; Total Yield of Flue-Cured Tobacco May Reach 60,000 Dan, a Twofold Increase Over Last Year; Self Sufficiency in Cigarettes Increased on a Large Scale"]

[Text] Our province realized a bumper harvest of flue-cured tobacco this year. The 35,000 mu of tobacco fields are expected to produce a total yield of 60,000 dan, a twofold increase over last year. This year will be the third high-yielding year since the founding of the nation. The quality of flue-cured tobacco is also better than in past years. According to statistics of related departments, at present, over 26,000 dan of flue-cured tobacco have already been procured. Of this amount, high-quality and medium-quality tobacco constitute 45.4 percent. This will increase our province's self-sufficiency in raw materials for cigarettes from 5 percent in the past to 25 percent.

The characteristics of this year's production of flue-cured tobacco are as follows: First, the key counties of the new and old tobacco producing regions realized an overall increase in yield, and the harvests of new tobacco regions are more impressive. The area of flue-cured tobacco in the 12 counties of new tobacco regions constitutes only one-seventh the total area of tobacco fields in the province, but the yield of flue-cured tobacco is equivalent to the total yield of tobacco leaves throughout the province last year. The 10 counties in Yanberi Prefecture produced a total of 13,000 dan of flue-cured tobacco, an increase of 26 times over last year. Second, the production of tobacco leaves by the old tobacco regions also revived quickly. Quwo County is expected to produce a total of 20,000 dan of tobacco leaves, an increase of six times over last year. Yicheng County is expected to produce a total of 6,700 dan, an increase of more than threefold over last year. Third, cake manure was applied over four-fifths of the tobacco fields of the whole province, and 70 percent of the area used the superior variety "pan yuan huang". The whole province invited over 420 technical personnel in cultivation and grading to provide technical guidance. All of these measures effectively improved the quality of flue-cured tobacco.

9296
CSO: 4007/184

PROVINCIAL AGRICULTURAL WORK CONFERENCE SETS FUTURE TASKS

Taiyuan SHANXI RIBAO in Chinese 16 Dec 81 pp 1,3

[Article by reporters of the Shanxi Peopla's Broadcasting Station and this paper: "Provincial People's Government Holds Provincial Agricultural Work Conference. Relying on Policy and on Science To Hasten Agricultural Development, the Conference Asks Participants to Do a Good Job of Establishing, Perfecting, Improving and Strengthening the Agricultural Production Responsibility System. While Carrying Out Food Grains Production, Economic Crops and Diversification Must Be Developed in a Big Way. In Particular, Cotton and Tobacco Production Must Be Promoted"]

[Excerpts] As the new year is about to arrive, the provincial people's government held a provincial agricultural work conference from 3 to 12 December. The conference, which was held in the spirit of the national agricultural work conference, summarized and exchanged the experience of our province's agricultural and livestock production and the production of commune and brigade enterprises, and studied and arranged the tasks of agricultural production for next year and for the period of the "sixth 5-year economic development plan."

During the conference, comrades from all over the province talked about the great situation on the agricultural front in our province. This year, the drought in some part of our province and the continuous rain during autumn in the southern regions of the province seriously affected agricultural production. But except for the yield of cotton, which registered a drop from last year, the production of other crops was relatively good. The total yield of food grains registered an increase over last year. The production of oil-bearing crops registered the second highest yield since the founding of the nation. The yield of sugar beets increased on a large scale over last year. The production of tobacco, silkworm cocoons, medicinal herbs, vegetables, and fruit all realized better achievements. In livestock production, the total yield of meat and such livestock products as eggs and milk all increased over last year. The total value of production and income from services provided by the whole province's commune and brigade enterprises will be able to reach 2.1 billion yuan. The total income of commune and brigade enterprises still constitutes over 40 percent of the total agricultural income. The income of the collective and commune members also registered new increases. It is estimated that the per capital income from the collective added to the income from sideline production by the commune member's family will increase by more than 10 percent over last year. Throughout the province, a large number of "outstanding families" with large increases in income have emerged. On the basis of the per capita average distributed income from the collective, there have emerged a number of communes with over 200 yuan and a number of brigades with over 300 yuan. There have emerged families with over 1,000 yuan of income and families producing over 10,000 jin of food grains and selling over 5,000 jin of food grains. In most of the poor moutain regions and old regions, which constitute a relatively large portion in our province, the per capita amount of food grains has reached about 500 jin, the per capita income has reached about 60 yuan, and the problems of heating and hunger have been basically solved. Now, the situation in the farm villages throughout the province is indeed a scene of political stability,economic prosperity, happiness, growth and prosperity. Our province was able to realize such good achievements in this year of severe drought on the agricultural front mainly because over the past few years, "leftist" mistakes have been corrected, policy has been relaxed, and in particular, the various forms of production responsibility system have been established and perfected, and the productive enthusiasm of the broad number of farmers has been mobilized.

Comrade Luo Guibo [5012 6311 3134] pointed out in his summary report on the situation and the tasks on the agricultural front in our province: This year, on the agricultural front our province has done a lot of work and has realized great achievements in implementing the lines, principles and policies since the Third Plenum. In the future, implementation of related policies of the party must be continually managed well. The most important problem this winter and next spring is to concentrate on truly establishing, perfecting, improving and strengthening the agricultural production responsibility system. Most of the localities throughout the province have conscientiously implemented the production responsibility system, and the results have been good. But it has been discovered that a few brigades and communes have not properly established the production responsibility system. Some have made simple gestures and established a superficial form. Others have provided statistics but have not actually established the system. It is hoped that the committees of the prefectures, cities and county committees will pay attention to this problem and conscientiously investigate, supervise and encourage the localities to truly implement the production responsibility system. Since the Third Plenum, the Party Central Committee has readjusted the distribution of crops, promoted the development of agricultural production, and established a series of economic policies in order to let the farmers rest and build up strength. In particular, the readjustment of procurement prices of agricultural products has provided more benefit to the farmers, and the broad masses are satisfied. The problem now is to conscientiously carry out these policies and to make sure the promises are fulfilled in order to win the confidence of the people. The basic procurement quotas for cotton and oil-bearing crops which have already been established should be stable and should not be changed lightly. The broad numbers of farmers must be taught to look at the whole situation and to begin by exerting efforts to develop production. Except for a few high-yielding brigades which have established an overly high basic quota in the past, making if difficult for them to produce surplus yields and affecting their productive enthusiasm, generally those with a low basic quota must not be adjusted upward, and those with high basic quotas should not be lightly adjusted downward. The signing of contracts for the procurement of agricultural and livestock products must be firmly implemented by the financial and commercial departments. Starting in 1982, except for the materials uniformly procured and commissioned for procurement by the state, regardless of whether the agricultural or livestock products are for foreign trade or for domestic markets, all agricultural products such as bast fiber skin, walnuts, peanuts, sesame, red dates, melon seeds, medicinal herbs, fruits and such livestock products as pork, mutton, domesticated fowl, hides, wool and eggs must be procured by contract. Procurement of the amounts stipulated in the contracts is guaranteed. Amounts not included in contracts can be procured by the commercial departments on the basis of negotiated price. They can also be processed by the communes and brigades and commune members themselves. All communes and brigades, departments of commerce and foreign trade must strictly abide by the contracts. Foreign trade, commercial and supply and marketing departments must actively guide and help farmers sell agricultural sideline products processed by the communes. brigades and commune members after completion of the procurement contracts. This is an important policy to protect the productive enthusiasm of the farmers. The financial and commercial departments should conscientiously implement this policy. The commercial, supply and marketing and foreign trade departments must change the past business method of manipulating prices only. They must think in terms of providing more convenience to the masses of farmers and in terms of opening the channels of flow of goods. Convenience to the masses and timely procurement must be realized in accordance with the production situation of agricultural and livestock products by the masses of commune members through rationally increasing the establishment of procurement stations. The financial and commercial departments must strengthen ideological education of its staff and workers, and establish the ideology of serving the people; the problems of artificially lowering the grade of goods, artificially suppressing the price of goods, and artificially fixing the scale must be strictly dealt with according to the seriousness of the case.

Comrade Luo Guibo said: To quickly enable agricultural production to progress along the road of a relatively solid rate of development, greater economic benefit and a road whereby the farmers can receive more actual benefit, we should also carry out the following work well in a key way in accordance with the present situation of our province's agricultural production:

1. We must actively develop forestry, livestock production and develop the superiority of the mountain regions. The area of mountain regions in our province constitutes over 70 percent of the total area.

2. The province possesses superior conditions for the development of forestry and livestock production. We must pay a lot of attention to planting trees and grass well, improve the percentage of covering, change the ecological environment, and improve the ability to resist natural disasters. We must pay a lot of attention to the development of economic crops and diversification. The conditions for developing diversification in our province are good. There are many favorable conditions for developing planting, cultivating

mining, and processing. We must further liberate our ideology, break through the confinement of the old ways of thinking. While not relaxing food grain production, we must develop diversification. In planting, we must develop the production of cotton, tobacco and sugar beets in a big way. Especially cotton production must be developed with determination. Cotton farmers must be given food grain subsidies according to state regulations, and the provincial committee and the provincial government must provide all kinds of assistance to the extent possible to stimulate rapid development of cotton production. Sorghum is a superior crop in our province's planting sector. It can be eaten and it is also an industrial raw material. It must be developed according to plan. During the past 2 years, although our province's livestock industry progressed somewhat, the number of female livestock has been drastically reduced. If this situation is not changed, the development of the livestock industry will necessarily be greatly affected. Family sidelines of commune member masses must be actively supported to help them develop such domestic fowl and domesticated livestock as rabbits, chickens, ducks, bees, silkworms, and martens as quickly as possible. Commune and brigade enterprises are important components of diversification in farm villages. They are forceful pillars to strengthen and enlarge the collective economy, and they are an important means for the farmers to become rich. Implementing the agricultural production responsibility system does not mean to shrink or chop away commune and brigade enterprises, but to steadily develop commune and brigade enterprises even better during readjustment. The developing commune and brigade enterprises must emphasize and pay attention to processing agricultural sideline products, local specialty products, livestock products, and follow the road of joint ventures in agriculture, industry and commerce. Commune and brigade enterprises can develop cooperation between enterprises both inside and outside the province, but when cooperating with enterprises outside the province, unified leadership and management must be strengthened.

3. We must quickly improve the standard of scientific planting, fully develop the function of scientific and technical personnel. To enable agricultural production to progress along the road of steady development, we must pay attention to the productive force of science and technology and we must truly include scientific planting, scientific cultivation of livestock and scientific management on the daily business agenda of the party committee and government at each level. Just as in establishing, developing and perfecting the production responsibility system, they should be carried out well and intensively. We must pay a lot of attention to developing the function of scientific and technical workers in agriculture and livestock production and the function of model laborers so that traditional agricultural techniques can be closely combined with modern agricultural techniques to stimulate the development of agriculture and livestock production.

4. We must insist on untiringly developing capital construction of farmland, changing the conditions of agricultural production, and improving the ability to resist disasters. We must upturn and improve the presently available cultivated land well on a broad basis. We must pay a lot of attention to increasing the application of organic fertilizers. We must build up large stockpiles of phosphorous fertilizers and small phosphorous fertilizers well,

and solve the problem of the deficiency of phosphorus in the soil. Here, I especially want to talk about the problem of water. During the last few years, because of drought and other conditions, most of the reservoirs and shallow wells have dried up, and the underground water level has seriously dropped. The reserve of underground water has decreased on a large scale. The supply of ground surface water is scarce, so great difficulties have occurred in the use of water for industry, agriculture and living. Our province does not have many ways of developing water sources. At present, we can only take effective measures to control the use of water and to conserve the use of water. The presently available water conservancy projects must have complete equipment. They must be strengthened and maintained to prevent leaks and seepage. In irrigation, border irrigation must be implemented. Flood irrigation must be prevented. When industry, agriculture, offices or schools want to sink deep wells, they all must ask for approval by the water conservancy departments above the county level.

9296
CSO: 4007/189

BRIEFS

TOBACCO PRODUCTION PROBLEMS--In 1952 there were 110,000 mu of tobacco fields with a total yield of 14.97 million jin. By 1980, the area had dropped to about 10,000 mu with a total output of only a million or so jin; moreover, the quality was not good, thus seriously effecting the production of Shanxi's tobacco industry. Each year a large amount of raw material had to be shipped into the province, reducing the provincial economic income and the income of peasants in the tobacco region of the province. Our serious attention could not but be drawn to this matter. The fact that smoking is harmful to one's health is common knowledge to everyone as is the fact that it is difficult to quit smoking. The supply of cigarettes in the marketplace is limited. The masses have their opinions about this and this too is common knowledge. But for the present, with regard to developing a diversified economy and increasing the peasants' income, there is still a strong need for the suitable development of tobacco production in areas suitable for raising tobacco. The income from growing tobacco is relatively high. In Yanbei Prefecture the three year average yield is 387 jin per mu and each mu can bring in 348 yuan. [Excerpt] [Taiyuan SHANXI NONGYE KEXUE [Shanxi Agricultural Sciences] in Chinese No 1, 20 Jan 82 p 27]

CSO: 4007/328

BRIEFS

1981 AGRICULTURAL PRODUCTION--Provincial Governor Liu Minghui [0491 2494 6540] said in his administration report at the fourth meeting of the province's Fifth People's Congress yesterday that in 1981 our province's agriculture again realized overall bumper harvests on the foundations of the large increased yields of the previous year. The situation in the farm villages is very good. Governor Liu Minghui said that in 1981 our province further implemented the various economic policies in farm villages promulgated since the Third Plenum. The province mainly grasped the two important links of establishing and making sound the production responsibility system on an overall basis and developing diversification. Overall increases were realized in agriculture, forestry, livestock production, sideline production and fishery. The total value of agricultural production is expected to increase 5.4 percent over 1980, and there may actually be a greater increase. The production value of economic crops is expected to increase 33.8 percent. Food grains, major economic crops and the number of livestock will all reach the highest levels in history. The total yield of food grains may reach 17.8 billion jin, an increase of 500 million jin over 1980. Among the major economic crops, flue-cured tobacco will increase by 59 percent, oil-bearing crops will increase by 48.9 percent, and sugar cane will increase by 19.3 percent. The commercial commodities percentage of agricultural products will also increase from 29.6 percent in 1980 to 34.5 percent. [Text] [Kunming YUNNAN RIBAO in Chinese 1 Jan 82 p 1] 9296

CSO: 4007/184

BRIEFS

HOG PROCUREMENT--As of 10 March, 2.38 million head of hogs were purchased in Zhejiang Province, fulfilling first quarter hog procurement tasks ahead of time. [OW221019 Hangzhou Zhejiang Provincial Service in Mandarin 1040 GMT 16 Mar 82 OW]

CSO: 4007/311

AUTHOR: SHEN Qiyi [3088 0366 4135]
CHEN Qiying [7115 0366 8751]

ORG: SHEN of the Beijing University of Agriculture; CHEN of the Plant Protection Institute, Chinese Academy of Agricultural Sciences, Beijing

TITLE: "Advances in Research Works of Cotton Wilt Diseases in China"

SOURCE: Beijing ZHONGGUO NONGYE KEXUE [SCIENTIA AGRICULTURA SINICA] in Chinese No 1, 20 Feb 82 pp 1-7

TEXT OF ENGLISH ABSTRACT: Fusarium wilt and verticillium wilt disease of cotton were the most serious diseases in China and caused the loss of about 200,000 tons of ginned cotton per year for several years. Since the establishment of the Association of Integrated Control of Cotton Fusarium Wilt and Verticillium Wilt Diseases, many achievements in scientific research have been obtained.

This paper is a general review of the research work in China on these two diseases during the past 10 years. The topics hitherto undertaken include the studies on species and physiological forms of cotton Fusarium wilt and Verticillium wilt pathogens, breeding for resistance, investigations on plant resistance, host plants, epiphytology studies, seed treatment and integrated control of these two diseases.

By means of resistant variety planting of cotton, about 150,000 tons of ginned cotton have been retrieved every year in recent years.

AUTHOR: LIU Xinyi [0491 0207 5030]
CHEN Xunzhen [7115 1575 4394]

ORG: Both of the Provincial Institute of Plant Protection and Soil Fertilizers, Hebei Province

TITLE: "Studies on the Host Plants of Wheat Rosettle Stunt Virus"

SOURCE: Beijing ZHONGGUO NONGYE KEXUE [SCIENTIA AGRICULTURA SINICA] in Chinese No 1, 20 Feb 82 pp 8-13

TEXT OF ENGLISH ABSTRACT: The host plants of wheat rosettle stunt virus (WRSV) is very widespread. Among the 10 species tested, including 49 varieties of cereal crops, wheat, barley, rye, triticale, oat, millet, proso and certain varieties of sorghum (Baiping and Luyiwaibo) were susceptible; corn and rice were resistant. Among the three grasses tested, species such as wild oat (*Avena fatua*), showy chloris (*Chloris virgata*), fingergrass (*Digitaria adscendens*), etc., were susceptible host plants; the other 19 species, such as barnyard grass (*Echinochloa crusgalli*), goosegrass (*Eleusine indica*), etc., were resistant host plants. No carrier host plants have been discovered. The results of the inoculation experiments demonstrated that the host plants of WRSV were very similar to those of the northern cereal mosaic virus (NCMV) reported in Japan. There were, however, minor differences. WRSV could infect yellow bristlegrass (*Setaria lutescens*) and individual varieties of sorghum, whereas NCMV could not. WRSV could not infect barnyard grass, whereas NCMV did. The authors suggest that WRSV may be a strain of NCMV.

AUTHOR: JI Xiuqin [4694 4423 3830]
LI Baodong [2621 1405 2767]

ORG: Both of the Institute of Plant Protection, Chinese Academy of Agricultural Sciences

TITLE: "Identification of Cotton Seedling Disease Fungus"

SOURCE: Beijing ZHONGGUO NONGYE KEXUE [SCIENTIA AGRICULTURA SINICA] in Chinese No 1, 20 Feb 82 pp 14-18

TEXT OF ENGLISH ABSTRACT: The "damping off disease" of cotton seedlings was reported to be caused by *Phytophthora parasitica* Dast in many countries. In recent years a species of phytophthora causing "damping off disease" of cotton seedlings has been prevalent along the Changjiang River, but it has not been identified. We studied the morphological and physiological characteristics of this fungus and found that it is identical morphologically to *P. boehmeriae* which caused boll blight in China, but its capability of starch utilization was quite different. Therefore we are of the opinion that the cotton seedling disease fungus in China may be a biotype of *P. boehmeriae* Sowada.

AUTHOR: YANG Zhengyu [2799 2182 3768]
CHEN Rongfang [7115 2837 5364]
TIAN Guiqin [3944 2710 3830]
et al.

ORG: All of the Institute of Rice, Liaoning Academy of Agricultural Sciences, Shenyang

TITLE: "Breeding of *Geng* Type Hybrid Rice Liyu 57"

SOURCE: Beijing ZHONGGUO NONGYE KEXUE [SCIENTIA AGRICULTURA SINICA] in Chinese No 1, 20 Feb 82 pp 38-42

TEXT OF ENGLISH ABSTRACT: The objectives for the breeding of *geng* type hybrid rice Liyu 57 and the three-line set of a combination for a strong heterosis were described in this paper. The heterosis of the hybrid and its morphological characteristics as well as the evaluation of the productivity were also described. Liyu 57 exhibits a heterosis derived from both its *geng* and *xian* parents and is characterized by semi-dwarf plant height as in *xian* rice and cold endurance as in *geng* rice. The F_1 of Liyu 57 has a wide adaptability and high resistance to adversity (resistance to drought and waterlogging, tolerance to poor soil fertility) when sown as early rice in the single-cropping area in Liaoning Province or rotated with wheat in the double-cropping areas in Beijing and Tianjin districts, and along the Huanghe River and Huaihe River basin where it has shown a high yield potential.

AUTHOR: DING Shoukang [0002 1103 1660]
QIAN Manmao [6929 2581 2804]
SONG Chunhua [1345 2504 5478]
et al.

ORG: All of the Institute of Crop Germplasm Resources, Chinese Academy of Agricultural Sciences, Beijing

TITLE: "Investigation of the Big Grain Germplasm of Wheat in China"

SOURCE: Beijing ZHONGGUO NONGYE KEXUE [SCIENTIA AGRICULTURA SINICA] in Chinese No 1, 20 Feb 82 pp 43-48

TEXT OF ENGLISH ABSTRACT: Since the founding of the PRC, the TKW (thousand kernel weight) of wheat varieties has been getting bigger and bigger. The mean TKW of the varieties was 31.4 g at the time of the beginning of the liberation, 35.3 g in the 1950's, 38.6 g in the 1960's and 40.5 g in the 1970's.

The average TKWs of varieties bred in various provinces were different. They were restricted by ecological conditions. The whole country was divided into four regions. When we introduced a variety from one region to another, it showed a difference in TKW because the ecological conditions were different.

[Continuation of ZHONGGUO NONGYE KEXUE No 1, 20 Feb 82 pp 43-48]

According to the results of our investigation on the size of wheat grains, we are of the opinion that the criterion for the TKW of big grain germplasm should be over 45 g.

Analysis of the pedigrees of big grain wheat varieties shows that the origins of these varieties are as follows: about 29.12 percent are derived from "Abbondanza," about 26.67 percent from "Orofen," 22.10 percent from "Nan Da," 5.96 percent from "Funo," with the total being 83.85 percent. The varieties whose TKWs are above 60 g have a variety of parentage, consisting not only of *T. aestivum*, but also *T. turgidum*, *T. durum*, *T. polonicum* and *Secale cereale*, etc.

AUTHOR: HU Changhao [5170 2490 3185]
PAN Zilong [3382 1311 7893]

ORG: Both of the Shandong Agricultural College, Taian

TITLE: "Studies on the Rules of Assimilate Accumulation and Nutrient Absorption and Distribution in the Summer Maize Plant. I. Rules of the Dry-matter Accumulation and the Variation of Water-soluble Carbohydrates and Free Amino-acid Contents"

SOURCE: Beijing ZHONGGUO NONGYE KEXUE [SCIENTIA AGRICULTURA SINICA] in Chinese No 1, 20 Feb 82 pp 56-64

TEXT OF ENGLISH ABSTRACT: The pattern of the process of dry-matter accumulation in the whole period of growth in a single maize plant appeared in the form of an S-shaped curve. The average dry-matter was 2.26 grams, and the average net assimilation rate was 8.93 $g/m^2/day$. Analysis of the ratio of watersoluble carbohydrates to free amino acids in the maize plant showed that the nitrogen metabolism played a dominant role at the early stage of growth, both the nitrogen and carbon metabolisms were vigorous at the middle stage, and at the late growing stage the carbon metabolism became predominant.

AUTHOR: SUN Yanhao [1327 1750 3185]
LIU Enhong [0491 1869 7703; deceased]
LI Jien [2621 4764 1869]
et al.

ORG: All of the Institute of Peanuts, Shandong Province

TITLE: "Research on the High-yield Factors and the Population Development of Peanuts"

SOURCE: Beijing ZHONGGUO NONGYE KEXUE [SCIENTIA AGRICULTURA SINICA] in Chinese No 1, 20 Feb 82 pp 71-75

TEXT OF ENGLISH ABSTRACT: A high yield of peanuts with a range from 1003.9 - 1303.2 jin/mu was obtained from 46 plots in 1979-1980. The factors constituting a high yield peanut were found to consist of an actual harvest of 10,500-15,000 plants per mu, 17.2 - 25.0 pods per plant with a total number of 256,000-298,000 pods per mu, and 231-256 pods per 0.5 kg; the seedling population grew strongly and rapidly during the early growing stage, while in the middle growing stage the plants grew steadily and stoutly, and did not show withering of the main stems in the late growing stage; the maximum LAI was 4.5 - 5.5; the best rate of net assimilation was 6.9 - 9.5 $g/m^2/day$, with a total biomass yield of 1840-2404.8 jin per mu.

AUTHOR: MA Siqi [7456 1835 1142]
WANG Wenke [3769 2429 4430]
WANG Yuchun [3769 3768 2504]
WANG Ming [3769 2494]

ORG: All of Harbin Veterinary Research Institute, Chinese Academy of Agricultural Sciences

TITLE: "Diagnosis of Transmissible Gastroenteritis (TGE) in Pigs by Examination of Tonsillar Smears with Direct Immunofluorescence Technique"

SOURCE: Beijing ZHONGGUO NONGYE KEXUE [SCIENTIA AGRICULTURA SINICA] in Chinese No 1, 20 Feb 82 pp 84-89

TEXT OF ENGLISH ABSTRACT: The results of examination of tissue smears from TGE experimentally infected pigs with the direct immunofluorescence (IF) technique are described. In pigs from the 2nd to 9th day after infection. fluorescence of antigen was observed in 100, 78, 78, 56, 22 and 11 percent of the smears prepared from the tonsil, jejunum, mesenteric lymph node, lung, liver and kidney respectively, and the spleen was negative. In pigs from the 13th to 41st day after infection the positive rate of tonsil was 60 percent and that of the jejunum was only 6.6 percent, while those of the other tissues almost became negative. The total positive rate of the tonsil was 75 percent, and that of the jejunum 33.3 percent.

[Continuation of ZHONGGUO NONGYE KEXUE No 1, 20 Feb 82 pp 84-89]

The accuracy of diagnosis by the direct IF method was confirmed by the results of susceptible pig inoculation and virus isolation in fetal pig kidney cell culture from tonsillar tissues of 25 symptomless, naturally infected adult pigs, and by the detection of TGE neutralizing antibodies in 13 naturally infected pigs showing clinical symptoms which had given positive tonsillar IF results. This procedure of examination is considered to be superior to the jejunum examination. A tonsillar drill was devised for the collection of tonsillar materials from living pigs. Good results have been obtained in the application of this method to the diagnosis of TGE in field outbreaks, epidemiological investigation and import inspection.

9717
CSO: 4011/41

AUTHOR: MA Xuezeng [7456 1331 1073]

ORG: Center of Agricultural Science and Technology Information, Shaanxi Province

TITLE: "Regionalized [Erosion] Control of Grasslands on Loess Plateau"

SOURCE: Nei Monggol ZHONGGUO CAOYUAN [GRASSLAND OF CHINA] in Chinese No 2, Jun 81 pp 7-9, 56

ABSTRACT: The problem of erosion is very serious in loess plateau, sending as much as 1.6 billion tons of sand into Huanghe every year. Including the wastelands, 70 percent (sic) of the plateau are forests, 15 percent farmland, and 75 percent grasslands. One percent of the sand comes from the forest, 49.5 percent from the croplands, 15.2 percent from grasslands, and 112.5 percent (sic) from fallow lands. In terms of erosion control; therefore, aside from emphasizing water and soil conservancy measures of the fields, the grasslands should also be taken care of to prevent runoff, to establish foundations for animal husbandry, and to reduce silting of Huanghe. For the purpose of achieving these goals, the paper divides the grasslands of the plateau into 5 regions: (1) Grasslands of the windblown sand region of the northernmost area of the plateau; (2) A region of hills and ravines south of the first region and north of the forest grassland; (3) Grasslands of the plain region of river valleys; (4) The highland grasslands with the thickest loessial deposits of the plateau; (5) The mountainous grasslands of elevations below 2000m. Grass species suitable for revitalizing each of these regions to transformit into pastures are provided as well as essential measures of wind and water erosion prevention.

AUTHOR: XIE Xianqun [6200 6343 5028]
TIAN Guoliang [3944 0948 5328]

ORG: Both of Research Institute of Geography, Chinese Academy of Sciences

TITLE: "Solar Radiation Resources of the Hulun-Boir Steppe"

SOURCE: Nei Monggol ZHONGGUO CAOYUAN [GRASSLAND OF CHINA] in Chinese No 2, Jun 81 pp 16-19, 6

ABSTRACT: Hulun Boir steppe is located in the northeastern part of China at about 50° N.lat. It is one of China's pastoral regions of the greatest daylight resources. In May-Jun 75 and Apr-Aug 76, the authors measure its direct solar radiation spectrum and computed its spectral elements. Combined with the 20-year radio observation data of the Hailar Weather Station, the intensity of ultraviolet, visible, and infrared radiation of the growing season of crops (May-Aug in that region) is analyzed. The photosynthesis potential of the steppe is estimated and compared with other regions of China, such as Shanghai, Guangzhou, Chengdu, etc. The paper concludes that although the climate of the steppe is very cold, with a short frostfree period of only about 110 days, the solar radiation is intense and mostly concentrate in the crop growing season, which is also the season of concentrated rainfall to provide very favorable conditions for the crops to utilize the light energy fully.

AUTHOR: WEN Zhenhai [2429 2182 3189]

ORG: Grassland Research Institute, Chinese Academy of Agricultural Sciences

TITLE: "Preliminary Report of the Forage Mixed Seeding Experiment"

SOURCE: Nei Monggol ZHONGGUO CAOYUAN [GRASSLAND OF CHINA] in Chinese No 2, Jun 81 pp 30-34

ABSTRACT: An experiment has been conducted since 1979 with mixed seeding of alfalfa and such forage species as smooth brome [Bromus inermis], common crabgrass [Digitaria sanguinalis] wild barley, or orchardgrass [Dactylis glomerata] in different amounts and different ratios to compare the unit yield. The experimental farm of the institute is located at 116°04' E. Long. and 43°57' N. Lat, 989.5m in elevation. It has light chestnut soil, pH 7.6-7.8, with a layer of humus about 20cm in thickness and coarse or fine sand below. Seeding is done in late May in small plots of 2 x 6 m. Before seeding, 5,000 jin/mu of mixed farm fertilizer is applied while turning and leveling the soil. Of the various combinations, the yield is found to be the highest when the legume [alfalfa= Medicago denticulata] is seeded in alternate rows of 15cm in width at a ratio of 1 : 1 with smooth brome. Details of the experiment are reported.

AUTHOR: ZHOU Shourong [0719 1108 2837]

ORG: Sichuan College of Agriculture

TITLE: "Studies on the Agricultural-Biological Characteristics of White Clover"

SOURCE: Nei Monggol ZHONGGUO CAOYUAN [GRASSLAND OF CHINA] in Chinese No 2, Jun 81 pp 35-40

ABSTRACT: White clover [Trifolium repens] is a native of Europe, in eastern Mediterranean or western Asia Minor. It is said to be cultivated in England as early as 1707 before spreading to the North American continent. Due to the fact that it is a fine leguminous pastoral forage and suitable for lawn decoration as well, it is soon extended to all areas of the world. In China, it has also been used for the pasture as well as the parks. It is now distributed in the wild in Sichuan, Guizhou, Xinjiang, etc., spreading from the original cultivated form. A study was conducted in 1974-80 in Wan Prefecture of Sichuan to observe its distribution and ecological adaptability in the basin, in the mountains bordering the basin, and in the Sichuan-Xizang Plateau, i.e. in the region of 26°-34° N.Lat. and 95°-110° E.Long. of an elevation of 180-4200m. Variations in flower and seeds induced by different environmental conditions, variations of yield in soils of different fertility, and other findings are reported.

6248
CSO: 4011/23

AUTHOR: None

ORG: None

TITLE: "Preliminary Report on Laser Treatment of Maize Weevils on Wheat"

SOURCE: Shanghai JIGUANG [LASER JOURNAL] in Chinese No 2, 1982 pp 122-124

TEXT OF ENGLISH ABSTRACT: We treated adult maize weevils (*Sitophilus zeamais* Motschulsky) on wheat with a CO_2 laser. The mortality of the maize weevils reached up to 99.25 ~ 100 percent; it had no adverse effects on wheat germination; wheat moisture was decreased by about 1.7 percent; wheat color was normal and the grains had not been damaged after treatment.

9717
CSO: 4011/43

AUTHOR: WANG Youzhi [3769 0645 2535]

ORG: Hebei Provincial Research Institute of Marine Products

TITLE: "Current Condition of Clam Resources in Bohai and Investigation Into Measures for Restoring Them"

SOURCE: Shanghai HAIYANG YUYE [MARINE FISHERIES] in Chinese No 1, 25 Jan 82 pp 16-19

ABSTRACT: Clam [Arca granosa] is an important economic shellfish of Bohai. Its production in 1976 reached the historical level of 40,000 tons, amounting to a quarter of the marine products of Hebei Province. Its production has dropped rapidly since then and the clam fishing has practically become worthless. There are 2 views concerning the cause of such large scale reduction of clam resources: One is the change of the ocean floor and the water quality induced by the violent earthquake of 1976; the other is the extreme low temperature of the winter of 1976 causing clams to freeze to death. According to net dragging and diving studies carried out in Jul 77, the ocean floor of the areas of clam distribution (map included) remains soft silt. The reported magmatic black water was never observed. Clams inhabit offshore waters all year long. When the atmospheric temperature of the coastal region was down to -12.6°C in the winter of 1977, there was no sign of dead clams at all. The author believes that although complex natural and artificial reasons may have caused the reduction of clam resources, excessive harvesting is the major factor. He advocates a rotation of areas open for fishing, shortening the fishing season to 5 months a year, and closing all areas from late Jun to early Sept, the reproductive season for clams. Measures should also be found through scientific research to promote propagation, to protect the clam resources, and to transplant clams to these areas which are most suitable for their growth.

6248
CSO: 4011/22

AUTHOR: LONG Zhenxiong [7127 2182 7160]

ORG: Shaoyang Prefecture Institute of Forestry, Hunan Province

TITLE: "Green Budding Points and Roots Obtained From Anther Culture of Camellia oleosa"

SOURCE: Beijing LINYE KEJI TONGXUN [FOREST SCIENCE AND TECHNOLOGY] in Chinese No 11, 11 Nov 81 p 6

ABSTRACT: For the purpose of finding new ways of breeding Camellia oleosa, research on its anther culture to develop haploid plants was carried out in 1976-80. Green budding points and roots resulting from evolving anther callus tissues have just been obtained. Following various unsuccessful attempts, roots were obtained under the condition of constant temperature after the anther was pre-cultured in liquid medium for 12 days and transferred onto a solid medium. When the anther callus was cultured with the medium of N_6(3% cane sugar, pH 5.8) with BA (2) + IAA(0.5) + 5Br (0.5) + riboflavin(1) added for 60 days under the room temperature of about 18°C and lighting condition of 10-12 hours/day with a fluorescent lamp, green budding points appeared; these budding points extended obviously after they were cultured for another 10 days. But due to limitations of objective factors [not specified] and contamination, a complete seedling was not obtained. Details of the experiment are reported.

6248
CSO: 4011/10

AUTHOR: WANG Zhaofeng [3769 0340 7364]

ORG: Research Institute of Forestry, Chinese Academy of Forestry Sciences

TITLE: "Approach to Improving the Effectiveness of Air Seeding"

SOURCE: Beijing LINYE KEJI TONGXUN [FOREST SCIENCE AND TECHNOLOGY] in Chinese No 2, 10 Feb 82 pp 15-17

ABSTRACT: Since the adoption of the air seeding technique in China in 1958, 170 million mu have been experimented and 70 million mu of adult and young forests have survived, amounting to 15 percent of the country's total forestation area. Judging from the afforestation schedule, the result of air seeding remains to be less than satisfactory and many problems are in need of studies. Due to such factors as flight altitude and speed, direction and speed of wind, seeding equipment, the length and width of the area to be seeded, etc.some places are seeded repeatedly and others are missed altogether. There are also problems concerning the natural conditions which vary a great deal from the north to the south, from one mountain slope to the other, etc. Characteristics of the species also present some problems. At present, the 3 species of Pinus massomania Lamb, P. sinensis [P. tabulaeformis Carr.?] and P. yunnanensis are the major ones used in air seeding. They are highly drought resistant. The survival rate should improve.

6248
CSO: 4011/20

END

END OF

FICHE

DATE FILMED

April 2, 1982